What is claimed is:

1. A composition comprising:

at least two siderophore receptor polypeptides (SRPs) isolated from a gram negative microbe;

at least two porins isolated from the gram negative microbe; and

lipopolysaccharide (LPS) at a concentration of no greater than about 10.0 endotoxin units per milliliter (EU/ml).

2. The composition of claim 1 further comprising a pharmaceutically acceptable carrier.

3. The composition of claim 1 wherein the gram negative microbe is an enteropathogen.

4. The composition of claim 1 wherein the gram negative microbe is a member of the family Enterobacteriaceae.

5. The composition of claim 1 wherein the gram negative microbe is a member of the tribe Escherichieae or Salmonelleae.

6. The composition of claim 1 wherein the gram negative microbe is *Salmonella* spp. or *Escherichia coli.*

7. The composition of claim 1 wherein the at least two SRPs have molecular weights of between about 60 kDa and about 100 kDa.

8. The composition of claim 1 wherein the at least two porins have molecular weights of between about 30 kDa and about 43 kDa.

9. A method for inducing the production of antibody in an animal, the method comprising administering to an animal an effective amount of a composition comprising:

at least two SRPs isolated from a gram negative microbe;
at least two porins isolated from the gram negative microbe;
LPS at a concentration of no greater than about 10.0 EU/ml; and
a pharmaceutically acceptable carrier, wherein the composition induces in the animal antibody that specifically binds at least one SRP or at least one porin.

10. The method of claim 9 wherein the gram negative microbe is an enteropathogen.

11. The method of claim 9 wherein the gram negative microbe is a member of the family Enterobacteriaceae.

12. The method of claim 9 wherein the gram negative microbe is a member of the tribe Escherichieae or Salmonelleae.

13. The method of claim 9 wherein the gram negative microbe is *Salmonella* spp. or *Escherichia coli*.

14. The method of claim 9 wherein the at least two SRPs have molecular weights of between about 60 kDa and about 100 kDa.

15. The method of claim 9 wherein the at least two porins have molecular weights of between about 30 kDa and about 43 kDa.

16. The method of claim 9 wherein the animal is an avian, a bovine, a caprine, a porcine, or an ovine.

17. The method of claim 9 wherein the animal is a bovine, and wherein the bovine exhibits a phenotype selected from the group consisting of decreased somatic cell count, increased milk production, decreased fecal shedding, and increased weight.

18. A method for inducing the production of antibody in an animal, the method comprising administering to an animal an effective amount of a composition comprising:

at least four SRPs isolated from a gram positive microbe; and

a pharmaceutically acceptable carrier, wherein the composition induces in the animal antibody to the SRP.

19. The method of claim 18 wherein the gram positive microbe is a member of the family Micrococcaceae.

20. The method of claim 18 wherein the gram positive microbe is *Staphylococcus aureus.*

21. The method of claim 18 wherein the at least four SRPs have molecular weights of between about 60 kDa and about 100 kDa.

22. A method for treating an animal for a high somatic cell count, the method comprising administering to a milk producing animal having or at risk of having a high somatic cell count an effective amount of a composition comprising:

at least two SRPs isolated from a gram negative microbe;

at least two porins isolated from the gram negative microbe;

LPS at a concentration of no greater than about 10.0 EU/ml; and

a pharmaceutically acceptable carrier.

23. The method of claim 22 wherein the gram negative microbe is an enteropathogen.

24. The method of claim 22 wherein the gram negative microbe is a member of the family Enterobacteriaceae.

25. The method of claim 22 wherein the gram negative microbe is a member of the tribe Escherichieae or Salmonelleae.

26. The method of claim 22 wherein the gram negative microbe is *Salmonella* spp. or *Escherichia coli*.

27. The composition of claim 22 wherein the at least two SRPs have molecular weights of between about 60 kDa and about 100 kDa.

28. The composition of claim 22 wherein the at least two porins have molecular weights of between about 30 kDa and about 43 kDa.

29. The method of claim 22 wherein the animal is a bovine.

30. A method for reducing fecal shedding of a microbe in an animal's intestinal tract, the method comprising administering to an animal an effective amount of a composition comprising:

at least two SRPs isolated from a gram negative microbe;
at least two porins isolated from the gram negative microbe;
LPS at a concentration of no greater than about 10.0 EU/ml; and
a pharmaceutically acceptable carrier.

31. The method of claim 30 wherein the gram negative microbe is an enteropathogen.

32. The method of claim 30 wherein the gram negative microbe is a member of the family Enterobacteriaceae.

33. The method of claim 30 wherein the gram negative microbe is a member of the tribe Escherichieae or Salmonelleae.

34. The method of claim 30 wherein the gram negative microbe is *Salmonella* spp. or *Escherichia coli*.

35. The method of claim 30 wherein the at least two SRPs have molecular weights of between about 60 kDa and about 100 kDa.

36. The method of claim 30 wherein the at least two porins have molecular weights of between about 30 kDa and about 43 kDa.

37. The method of claim 30 wherein the animal is an avian, a bovine, a caprine, a porcine, or an ovine.

38. The method of claim 30 wherein the microbe present in the animal's intestinal tract is a gram negative microbe or a gram positive microbe.

39. A method for treating an animal for low milk production, the method comprising administering to a milk producing animal having or at risk of having a low milk production an effective amount of a composition comprising:

at least two SRPs isolated from a gram negative microbe;
at least two porins isolated from the gram negative microbe;
LPS at a concentration of no greater than about 10.0 EU/ml; and
a pharmaceutically acceptable carrier.

40. The method of claim 39 wherein the gram negative microbe is an enteropathogen.

41. The method of claim 39 wherein the gram negative microbe is a member of the family Enterobacteriaceae.

42. The method of claim 39 wherein the gram negative microbe is a member of the tribe Escherichieae or Salmonelleae.

43. The method of claim 39 wherein the gram negative microbe is *Salmonella* spp. or *Escherichia coli.*

44. The method of claim 39 wherein the at least two SRPs have molecular weights of between about 60 kDa and about 100 kDa.

45. The method of claim 39 wherein the at least two porins have molecular weights of between about 30 kDa and about 43 kDa.

46. The method of claim 39 wherein the animal is a bovine.

47. A method for treating mastitis in a milk producing animal, the method comprising administering to a milk producing animal having or at risk of having mastitis an effective amount of a composition comprising:

at least two SRPs isolated from a gram negative microbe;
at least two porins isolated from the gram negative microbe;
LPS at a concentration of no greater than about 10.0 EU/ml; and
a pharmaceutically acceptable carrier.

48. The method of claim 47 wherein the gram negative microbe is an enteropathogen.

49. The method of claim 47 wherein the gram negative microbe is a member of the family Enterobacteriaceae.

50. The method of claim 47 wherein the gram negative microbe is a member of the tribe Escherichieae or Salmonelleae.

51. The method of claim 47 wherein the gram negative microbe is *Salmonella* spp. or *Escherichia coli.*

52. The method of claim 47 wherein the at least two SRPs have molecular weights of between about 60 kDa and about 100 kDa.

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53. The method of claim 47 wherein the at least two porins have molecular weights of between about 30 kDa and about 43 kDa

54. The method of claim 47 wherein the animal is a bovine.

55. A method for treating metritis in an animal, the method comprising administering to a milk producing animal having or at risk of having metritis an effective amount of a composition comprising:

at least two SRPs isolated from a gram negative microbe;
at least two porins isolated from the gram negative microbe;
LPS at a concentration of no greater than about 10.0 EU/ml; and
a pharmaceutically acceptable carrier.

56. The method of claim 55 wherein the gram negative microbe is an enteropathogen.

57. The method of claim 55 wherein the gram negative microbe is a member of the family Enterobacteriaceae.

58. The method of claim 55 wherein the gram negative microbe is a member of the tribe Escherichieae or Salmonelleae.

59. The method of claim 55 wherein the gram negative microbe is *Salmonella* spp. or *Escherichia coli*.

60. The method of claim 55 wherein the at least two SRPs have molecular weights of between about 60 kDa and about 100 kDa.

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61. The method of claim 55 wherein the at least two porins have molecular weights of between about 30 kDa and about 43 kDa

62. The method of claim 55 wherein the animal is a bovine.

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63. A method for isolating outer membrane polypeptides, the method comprising

providing a gram negative microbe;

disrupting the gram negative microbe in a buffer;

solubilizing the disrupted gram negative microbe; and

isolating molecules of the gram negative microbe, wherein the isolated molecules comprise outer membrane polypeptides comprising at least two SRPs and at least two porins, and LPS at a concentration of no greater than about 10.0 EU/ml.

64. A method for isolating outer membrane polypeptides, the method comprising

providing a gram negative microbe;

disrupting the gram negative microbe in a buffer, wherein the gram negative microbe is present in the buffer at a concentration of between about 720 grams of microbe per 1,000 milliliters of buffer and about 1,080 grams of microbe per 1,000 milliliters of buffer;

solubilizing the disrupted gram negative microbe for greater than about 24 hours in a solution comprising sarcosine, wherein a ratio of the sarcosine to gram weight of disrupted gram negative microbe is between about 0.8 gram sarcosine per about 4.5 grams of disrupted gram negative microbe and about 1.2 grams sarcosine per about 4.5 grams of disrupted gram negative microbe; and

isolating molecules of the gram negative microbe, wherein the isolated molecules comprise outer membrane polypeptides comprising at least two SRPs and at least two porins.

65. The method of claim 64 wherein the isolated molecules further comprise LPS at a concentration of no greater than about 10.0 EU/ml.

66. A method for isolating outer membrane polypeptides, the method comprising

providing a gram negative microbe;

disrupting the gram negative microbe;

solubilizing the disrupted gram negative microbe in a solution comprising sarcosine, wherein ratio of the sarcosine to gram weight of disrupted gram negative microbe is between about 0.8 gram sarcosine per about 4.5 grams of disrupted gram negative microbe and about 1.2 grams sarcosine per about 4.5 grams of disrupted gram negative microbe; and

isolating molecules of the gram negative microbe, wherein the isolated molecules comprise outer membrane polypeptides comprising at least two SRPs and at least two porins.

67. The method of claim 66 wherein the isolated molecules further comprise LPS at a concentration of no greater than about 10.0 EU/ml.

68. A method for isolating outer membrane polypeptides, the method comprising

providing a gram negative microbe;

disrupting the gram negative microbe;

solubilizing the disrupted gram negative microbe for greater than about 24 hours; and

isolating molecules of the gram negative microbe, wherein the isolated molecules comprise outer membrane polypeptides comprising at least two SRPs and at least two porins.

69. The method of claim 68 wherein the isolated molecules further comprise LPS at a concentration of no greater than about 10.0 EU/ml.

70. A method for isolating outer membrane polypeptides, the method comprising

providing a gram negative microbe;

disrupting the disrupted gram negative microbe in a buffer, wherein the gram negative microbe is present in the buffer at a concentration of between about 720 grams of microbe per 1,000 milliliters of buffer to about 1,080 grams of microbe per 1,000 milliliters of buffer;

solubilizing the gram negative microbe; and

isolating molecules of the gram negative microbe, wherein the isolated molecules comprise outer membrane polypeptides comprising at least two SRPs and at least two porins.

71. The method of claim 70 wherein the isolated molecules further comprise LPS at a concentration of no greater than about 10.0 EU/ml.